

## **DOT&E CINC SUPPORT: ACHIEVING JOINT INTEROPERABILITY**

“I appreciate your personal concern in assisting this command in improving our combat readiness and look forward to similar support during future exercises.”

*R. Steven Whitcomb, Major General, US Army/Assistant Chief of Staff, US Forces Korea, J3*

Experience has shown that achieving interoperability is a team effort. It cannot be accomplished by any single agency or organization working in isolation. We believe it must be done through effective partnerships, providing high levels of customer service, and offering state-of-the-art tools and products incorporating the best technology available to the warfighter. Year 2000 has been a year in which great strides were made toward understanding and achieving interoperability. Our on-site representatives are helping the CINCs achieve their goals by helping them measure their successes and understand and correct areas in need of improvement. This leads to better defined Joint requirements, which are both measurable and testable.

### **THE BENEFITS OF DOT&E'S PARTNERSHIP WITH THE CINCS**

#### ***Test and Evaluation Expertise to CINC Warfighter***

DOT&E's partnership with the CINCs has resulted in permanent improvements to the way CINCs plan their exercises and assess their interoperability readiness.

DOT&E supports the CINCs by providing the operational community with on-site test and evaluation expertise. This support began as a response to the CINC's need for assistance with the Y2K operational evaluations (OPEVALs). There was no standardized process for conducting these evaluations, no standardized training, and no consistent way to track the results. The CINCs had to not only conduct these OPEVALs, but had been directed by the Office of the Secretary of Defense to perform mission-centric testing in accordance with the Clinger-Cohen Act. This would have to be accomplished within existing staffing levels and with few, if any, additional resources. DOT&E offered the CINCs experienced personnel to assist the CINCs with planning, executing, and analyzing data for the operational evaluations.

On-site DOT&E representatives were placed at the CINCs to provide operational field experience, test and evaluation experience, and interoperability assessment processes that were tailored to each CINC's individual needs. The CINC Y2K OPEVALs were a success. However, they revealed more interoperability problems than Y2K problems. One of the major CINC challenges for Year 2000 was addressing the interoperability issues identified in the Y2K OPEVALs. DOT&E continues to provide assistance to the CINCs by capitalizing on the mission-centric focus of Y2K OPEVALs. CINC Y2K OPEVAL processes were refined and repackaged into an Operational Capability Assessment Process (OCAP) designed to measure outcome-based interoperability.

DOT&E on-site personnel provide technical assistance to U.S. Forces-Korea's (USFK) evaluations, helping to ensure the accomplishment of USFK's wartime missions. DOT&E provides support in planning, training, execution, and analysis of the evaluations, and the development of final reports, which were central to the success of two-major exercises. The goals of the annual Reception and Staging, Onward Movement and Integration (RSOI) Exercise were to: (1) meet theater-training

objectives; (2) identify operational strengths that should be sustained; and (3) identify issues that would require additional focus. DOT&E support contributed significantly to the successful completion of this very challenging task. Particularly noteworthy was the thorough report prepared after the exercise that captured the observations and recommendations for improvement. Completion of ULCHI-FOCUS LENS, the world's largest simulation driven command post exercise, was a tremendous success due largely to technical assistance provided by DOT&E. Our support helped capture challenges and opportunities in the Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C<sup>4</sup>ISR) interoperability area.

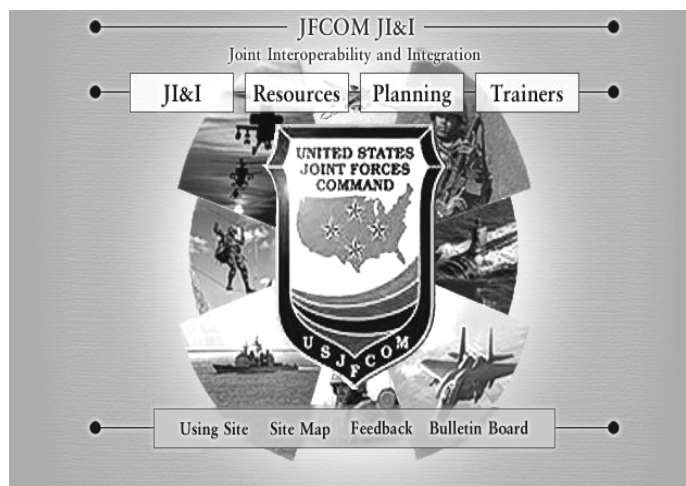
U.S. Pacific Command used DOT&E's on-site expertise and the Operational Capability Assessment Process (OCAP) during the critical planning and execution phases of the first JOINT MISSION FORCE COMMAND AND CONTROL EXERCISE. In the CINC's comments, the DOT&E team was singled out for providing a capability indispensable to the Pacific Command's planning, execution, analyses, and reporting efforts.

Similar on-site technical support is also being provided to CENTCOM, SOCOM, and EUCOM.

### ***Standard Interoperability Assessment Process***

The OCAP has been developed and undergoes continuous refinement to give operational personnel a simple, straightforward process to conduct interoperability assessments, either as a stand-alone assessment or in conjunction with an existing exercise. OCAP can be used as is or modified to accommodate local policy and procedure. It can be used in its entirety, but is broken down into sub-processes that can be applied as needed or wanted. The OCAP provides the CINC's with a method to report and track exercise results that can be monitored until issues are resolved or otherwise brought to closure.

DOT&E has also developed a web-based Resource Exchange Center to provide the CINC's with easy access to automated tools, training, and critical test and evaluation information. These sites are developed in collaboration with the hosting CINC's, with the USFK and JFCOM sites already being completed. Resource Exchange Centers for additional CINC's will be developed at later dates. The sites allow the CINC's to provide DOT&E with feedback on improvement to resources and where on-site support is most needed—the ability to test interoperability in a Family of Systems Environment.



DOT&E CINC support also contributes to achieving Joint interoperability. DOT&E assists the CINC's in comparing and analyzing common interoperability issues and can help to evaluate those issues in context of a Family of Systems across the CINC's. Instead of looking at the performance of an individual system, the DoD can now evaluate how a system will impact overall mission performance and how individual systems operate in the entire Joint system architecture. Since interoperability consists of more than system-to-system connectivity, the CINC field environment allows the DoD to look at connectivity, processing, doctrine, training, protocols, and standards from a Joint perspective.

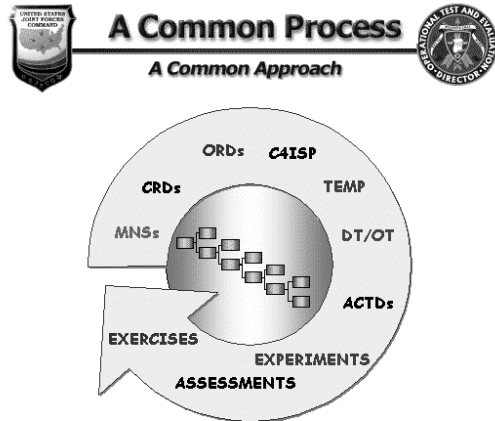
DOT&E's partnership with the CINCs helped identify interoperability as a significant DoD shortfall. Furthermore, this partnership brought the interoperability issue to the forefront of both the test and requirements communities. We helped DoD to shift from a system-centric focus to a Family of Systems/mission-centric focus required by the Clinger-Cohen Act. Our efforts to heighten the awareness of the Family of Systems and interoperability issues contributed to revising the documents that govern requirements generation, interoperability, and the overall acquisition process.

***Common Goal – Common Process- Common Approach***

## Mission Assessment Process



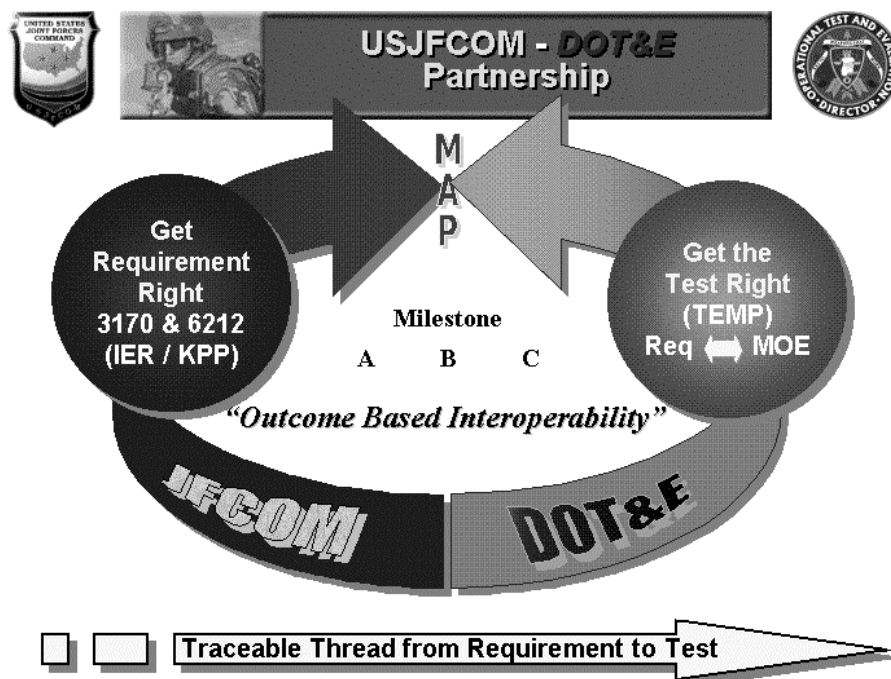
It is particularly noteworthy that our on-site representative at U.S. Special Operations Command (SOCOM) participated in the development of SOCOM's new requirements generation system using concepts and processes developed by DOT&E for the CINCs. Having a representative in SOCOM will help provide invaluable lessons learned from this unique environment, and allow the other CINCs and services to incorporate them as they may apply.



The MAP was designed to facilitate the development of Mission Needs Statements, CRDs, and ORDs, as well as any type of test activity. It provides the standardization needed to address the interoperability challenges of the new millennium, the development of complex communications systems and Families of Systems (such as the Global Information Grid), and the realization of Joint Vision 2020. The MAP is being used to help JFCOM in its role as the Force Integrator, and is central to the partnership between DOT&E and JFCOM in addressing interoperability and integration issues that could threaten the modern warfighter.

*...from requirements through fielding*

#### *DOT&E's Special Partnership with JFCOM - the Force Integrator*



DOT&E supports U.S. Joint Forces Command in its role as Joint integrator and Joint experimenter by providing a model to facilitate the identification, testing, and resolution of common CINC issues. DOT&E, working in partnership with JFCOM, is helping the CINCs and services achieve interoperability.

The DOT&E on-site support at JFCOM is assigned to the Joint Interoperability and Integration Section. In this capacity, he can help all of the CINCs identify common issues from field exercises. He also acts as a liaison between CINCs and requirements personnel, providing two-way feedback. As requested, he provides requirements developers with test reports and analysis that could be used to augment available studies. This key position has resulted in dramatic opportunities to open channels of communication and provide new services to field personnel, testers, and the requirements community. By partnering with JFCOM, processes have been developed and improved, and on-site personnel have been strategically placed to help implement those processes. This is resulting in better tests, accountability for tracking and producing results, and implementing the corrective actions needed to achieve Joint interoperability. Working with JFCOM has allowed both DOT&E and JFCOM to achieve unprecedented customer service levels. This new partnership saves time, money, and will help streamline the requirements development process, and help testers yield better, more accurate results.

